E&MJ METAL AND MINERAL MARKETS

WEEKLY MARKET INFORMATION ISSUED BY THE PUBLISHERS OF ENGINEERING AND MINING JOURNAL

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THIS WEEK IN THE MARKETS...

- **Lead and Prime Western zinc buying jumps. Lead demand up abroad also.**
- **Copper strikes continue in U.S. Prices ease slightly here and abroad.**

COPPER—domestic average 34.113c per lb delivered

Copper priced in and outside the U.S. this week remained low and almost unchanged from last week. The U.S. weighted average price dropped somewhat though U.S. producers stayed with their 33c price and a major custom smelter maintained the 35c price.

The weighted average price for sales outside the U.S. dropped about ½c a lb. This reflected the general easing of most prices in Europe. European prices follow the changing views on copper availability in connection with strikes.

The strikes in the U.S. copper supplying industry have not changed. Phelps Dodge was scheduled to negotiate with Mine-Mill at El Paso yesterday. None of its strikes are settled. Kennecott had not settled with certain craft unions. Anaconda's trouble in Montana continues—Mine-Mill has called in the NLRB; it claims dealing with local 117 separately is an unfair labor practice.

Merchant asking prices for February wire bars vary from about 36½c to 38c in the U.S.

TIN—99¼c a lb, N.Y.

LME and N.Y. prices moved up with end of the steel strike, but slid off when business here continued slow. Platers, covered for a while and aware of ready supplies, have showed little buying interest.

ALUMINUM—primary pig 26c a lb del.; export 23¼c

An Alcoa official has indicated the company does not at present plan to raise aluminum prices. This statement may stem from the suggestions by a number of observers that aluminum prices may be raised again. These suggestions are based on the view that aluminum pig and ingot prices are now where they were two years ago and that cost increases since then justify higher prices.

Since the Korean War, during those years when business conditions were exceptionally good, aluminum prices were boosted twice a year. Ordinarily they were raised when the annual wage increases occurred and one other time. During the past two years the over supply of aluminum and resulting sharp competition has made price increases more difficult to manage. With the view that competition will continue sharp in aluminum, some analysts believe prices will be boosted less often and that actual prices will vary from quoted prices more than in the past.

This view does not preclude a price increase later in 1960. If 1960 becomes a boom year for the economy a price increase in aluminum is quite possible. But during recessions price gains may be lost.

LEAD—12c a lb New York

Lead sales this week were 33,321 short tons. This figure is not comparable with the figures previously published by M&MM—see discussion here last week. A comparable figure would be close to 25,000 tons. This still represents a great jump in sales.

The last time there was such a bunching was the third week of August which preceded a price hike of 1c. That price hike and sales increase was related to the notion labor strikes might develop that would reduce the lead supply. For the last four months sales have been extraordinarily low and the sales jump this week reflects some stock replenishment. But the view that lead will not drop below 12c and the outlook for increased consumption also had a bearing.

Some suggest users, especially battery makers, are increasing output owing to rising demand for their product. Auto output is being accelerated and battery production may have to go 15% over normal for this time of year. Nov. battery output was 2,792,000; Oct. was 3,069,000 and Nov. of 1958 was 2,262,000 according to Dun & Bradstreet.

Demand abroad has picked up. London is now about ½c over a month ago. Discounts for imported lead are now less than $5 a ton.

ZINC—Prime Western 12½c a lb East St. Louis

Zinc sales this week were the highest since mid-October. Though Special High continues very good the bulk of the jump reflected galvanizers after Prime Western. Buyers are sure zinc can't drop and may rise—they can't lose by buying. Most is for February, some for March and some are after metal, preferably at flat prices, for much farther forward.

E&MJ Average Prices* Dec. 1959

Copper, domestic ref'y	33.724	Silver, N. Y., per oz.	91.375
Export ref'y	30.801	London, per oz.	80.250d
Export c.i.f. Cont'l ports	31.746	Sterling exchange	279.845
LME, prompt (c)	£255.443	Tin, N. Y., "Straits"	99.153
LME, 3-months (c)	£239.756	LME, prompt (c)	£789.159
Lead, common, New York	12.523	LME, 3-months (c)	£785.330
Common, E. St. Louis	12.323	Gold, per oz., U.S.	$35.000
LME, prompt (c)	£72.696	Quicksilver, N. Y., flask	$214.091
LME, 3-months (c)	£72.452	Antimony, N. Y., boxed (a)	32.590
Zinc, PW, E. St. Louis	12.500	Bulk, f.o.b. Laredo	29.000
PW, Del. (d)	13.000	Boxed, f.o.b. Laredo	29.500
LME, prompt (c)	£95.190	Foreign, 99½%, lb	24.500
LME, 3-months (c)	£90.162	Platinum, per oz.	$77.000
		Cadmium, lb, del., ton lots	130.000
		Small lots	140.000
		Cobalt, 97% grade	$1.750
		Aluminum, ingot, weighted av.	27.255
		Primary pig	25.155
		Primary pig, export	22.841
		Magnesium ingot, average	35.250
		Nickel, (b)	74.000
		Bismuth, per lb.	$2.25

*In cents unless otherwise specified.

(a) Domestic, 5 tons or more but less than carload lot, boxed. (b) F.o.b. Port Colborne, including U.S. duty, and Crum Lynne, Pa. (c) Average of daily mean bid and ask quotations, per long ton, at morning session of London Metal Exchange. (d) Delivered where freight from E. St. Louis exceeds 0.5c.

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E&MJ METAL AND MINERAL MARKETS

WEEKLY MARKET INFORMATION ISSUED BY THE PUBLISHERS OF ENGINEERING AND MINING JOURNAL

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U.S. Steelmaking Capacity Up For 13th Successive Year

Steelmaking capacity in the United States increased 937,300 net tons in the past year — to a record of 148,570,970 tons annually, as of Jan. 1, 1960, according to American Iron & Steel Institute.

The capacity gain was the thirteenth annual increase in succession. It was achieved despite the long, nationwide strike which forced some companies to stop work on expansion projects.

The new, nearly 148.6-million-ton figure (the annual capacity for the output of ingots and steel for castings) is 62% higher than the potential at the end of World War II, and is over 31-million tons above the steel industry's greatest annual production, 117-million tons during 1955. This provides a large amount of reserve capacity, which is available for possible national emergencies and for the future growth of the population of this country.

The largest increase during 1959 was in electric furnace capacity which rose 900,810 net tons. The capacity of electric furnaces is now 14,395,940 net tons a year, against 13,495,130 tons at the start of 1959. These furnaces account for 9.7% of the total annual capacity figure.

The potential for making steel by the basic oxygen process increased 124,240 tons a year. This capacity now totals 4,157,400 tons annually, against 4,033,160 tons at the start of 1959.

Open hearth furnace capacity increased 93,250 tons. The combined capacity of open hearths is now 126,621,630 net tons per year, against 126,528,380 tons one year ago. These furnaces account for over 85% of the total annual steel capacity figures.

Blast furnace capacity has been increased 1,885,780 net tons. The annual potential of these furnaces is now 96,520,630 net tons a year.

Comex Activity Sets Post-War Record

The volume of futures trading on the Commodity Exchange for the fiscal year ending Nov. 30, 1959, soared to a new post-war high with a total of 132,308 contracts traded in copper, lead, tin, zinc, rubber, hides and burlap futures.

Activity represents a net increase of 128% over 1958's 57,888 and far surpasses the previous post-war record of 84,002 in 1955.

The contracts traded represent an estimated over-all dollar volume of $1,748,345,700 based on settlement prices, compared with fiscal 1958 when dollar volume was estimated at $631,500,002. The previous post-war record year was 1955 when estimated dollar volume was $806,747,195.

Wide price fluctuations marked all major Comex commodities during the year. The great risks involved for producers and dealers under such conditions made the outstanding facilities for hedging inherent in futures markets highly attractive, and greater use of these facilities was made during 1959 than at any time since prior to World War II.

(Continued on page 7)

Veltfort Sees Brass Mill Output Rising 5% in '60

Present indications are that brass mill output will rise 5% in 1960. U.S. copper production should be well ahead of 1959, when the picture was clouded by the prolonged strikes at leading mines and refineries. U.S. mine output in 1960 should be close to 1,160,000 tons and refined production about 1½-million tons, according to T. E. Veltfort, managing director of the Copper & Brass Research Association, in his annual year-end statement.

Veltfort foresees brass mill shipments of close to 2-billion lb in 1960, an increase of 100-million lb over 1959 and of 500-million lb over shipments in 1958. Major brass mill product markets will continue to be in the fields of residential construction, automobiles, air conditioning and refrigeration, electrical appliances, and metalworking. Other traditional use areas include electrical machinery and equipment, electronic devices and industrial-scientific equipment.

"Obviously," he explained, "the 1960 projections are based on imminent resumption of all U.S. strike-bound copper production and a final settlement of the steel situation without the recurrence of that strike."

Veltfort stated that indicated sales this year by his Association's member mills include 730-million lb of sheet, 590-million lb of pipe and tube, 520-million lb of rod, and 100-million lb of mechanical wire.

"To justify our poundage estimates for 1960," Veltfort noted, "there must, of course, be commensurate demand in the market place. Our market studies indicate there will be. For instance, 1960 estimated sales of U.S. made automobiles have been set at 6½-million cars. The average car consumes 35 to 40 lb of copper metals, exclusive of accessories. Although residential building has been restricted of late because of tight money, housing starts in the new year should run at between 1.1 and 1.2-million, at least. A high percentage of these will average 250 lb of copper tube for plumbing lines."

He went on further to point out that, barring a war or severe depression, housing starts during the following years are expected to climb at a rate that will reach 1.8-million per year by 1970. Housing at this 1970 pace would require

(Continued on page 7)

Free World Copper Mine Capacity

(CABRA projections in thousands of short tons)

	Capacity	Additional Capacity Scheduled For Completion Less Mine Depletions					Scheduled Capacity
	1958	1959	1960	1961	1962	1963	1963
U. S.	1,225.0	19.7	14.5	5.0	10.0	53.0	1,327.2
Canada	414.0	1.1	30.4	—6.6 (a)	—1.6 (a)	—1.6 (a)	435.7
Chile	602.0	34.8	50.5	11.0	—6.0 (a)	24.0	716.3
Peru	66.0	17.0	123.0	...	—20.0 (a)	...	186.0
West Europe	134.0	4.7	6.5	12.0	13.0	...	170.2
Asia	233.0	6.4	4.9	...	7.0	3.0	254.3
Africa	919.0	5.0	57.5	37.6	66.5	2.5	1,088.1
Australia	76.0	13.0	4.0	...	...	...	93.0
Others	94.0	—4.7 (a)	2.7	6.0	...	...	98.0
Net Free World	3,763.0	97.0	294.0	65.0	68.9	80.9	4,368.8

(a) Mine depletion is greater than additional capacity scheduled for completion.

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Miscellaneous Metals

Wholesale lots, (a) f.o.b. ship. pt.; (b) delivered; (c) f.o.b. N.Y.; (d) Dep. on size of lot; (e) dep. on grade; (n) nom.

ALUMINUM: lb (b) eff. 12-17-59, ingot:
99.50%.....28.1c 99.80%.....29.1c
99.75%.....28.6c 99.85%.....30.1c

ANTIMONY: dom, lb., Dec. 31-Jan. 6 Hol. 1
boxed N.Y. (c) 32.590c
bulk (a) 29c
boxed (a) 29½c
imported 10-ton lots, 99½%, duty pd..24½c
99% 24c

BERYLLIUM: 97%, (a), lb $71.50

BISMUTH: lb, ton lots $2.25

CADMIUM: lb (b) Dec. 31-Jan. 6 Hol. 1
Ton lots, Eff. Oct. 1, 1959 .....$1.30
Less than ton lots $1.40
See Oct. 8, 1959, p. 12

CALCIUM: lb, ton lots, slabs, etc. $2.05

CHROMIUM: (b) lb of material,
exo. 98.5%, .05%C, ...(d)$1.15-1.19
Elec. 99.8% .....(d)$1.15-1.19
Vacuum melting .....4c more

COBALT: lb, (c), eff. 2-1-59
500 lb lots $1.75
100 lb $1.77
less than 100 lb $1.82
fines $1.75

COLUMBIUM: lb. 99½%, (d)
roundels $36
rough ingots $50

GALLIUM: gr, 1000-g lots $3.00

GERMANIUM: g
1000-g lots, 1st red .....29.5c(b)-30.15c(a)
intrinsic .....29.95c(b)-31.95c(a)
10,000-g lots, 1st red.....28.15c(a)-29.5c(b)
intrinsic .....29.95c(b)-29.95c(a)

INDIUM: tr oz, 99.9%, small lots $2.25
over 5,000 oz $1.25-2.25

IRIDIUM: tr oz $75-80

LITHIUM: lb 99.5% $9-11

MAGNESIUM: lb (a) 10,000 lb lots,
pig ingot 99.8% 35¼c-36.65c
notched ingot 36c-37.45c

MANGANESE: lb (b) 95½%, carloads,
bulk 45c
packed 45¾c
elec (a) frt. allowed E. of Miss., 99.9%..34c
ton lots eff. 4-1-57 .....36c
prem for hydrogen removed .....¾c lb

MOLYBDENUM: (a) eff. 8-56
powder, carbon red $3.35

NICKEL: lb (a) duty included 74c
eff. 12-6-56
dealers 74c
powder (b) U.S. 74c
sinter (nickel content) point of entry,
eff. 7-14-58 .....69.6c

OSMIUM: oz (n) $70-90

PALLADIUM: tr oz eff. 11-9-59....$22-24

PLATINUM: tr oz $77-80
average $77

QUICKSILVER: flask, N.Y. $211-13, eff. 1-4

RADIUM: mg, Ra content $16-21½

RHODIUM: tr oz $122-125

RUTHENIUM: tr oz $55-60

SELENIUM: lb, 2-19-58, comm. grade $7
high purity $9.50

SILICON: lb (a) eff. 6-1-59
98% max. .51-1.0% Fe, crushed 20.85c
lump 19c
Hyper-pure: (4-1-57) #1.....$360
#2.....$250
#3.....$160
solar cell (4-1-57) .....$ 90

SODIUM: lb, carloads 16½c

TANTALUM: perlb.(a)(e),powder$40-58.60
sheet (e) $50.35-59.18
rod (e) $73.04-80.23

TELLURIUM: lb $3.00

THALLIUM: lb $7.50

TITANIUM: lb (a) A-1 99.3%
max. .3% Fe $1.60
max. .5%, Fe. eff. 8-1-59 .....$1.50

TUNGSTEN: lb 98.8%
1000-lb lots .....$2.75-$2.90
Hydrogen red 99.99% $3.35-4.25
dep. on Fisher No. eff. 12-28-59

VANADIUM: lb, 90% V 100 lb lots..$3.45

ZIRCONIUM: lb (a) sponge, powder
platelets: low hafnium $7-14
comm.....$5-10

Mineral and Ore Markets

Barter of Indian manganese ore and ferromanganese for U.S. surplus grain finally appears to have gotten under way. Offers were submitted to the U.S. Government's Commodity Credit Corporation by seven U.S. firms this week.

This barter transaction had been cooking probably for about two years. For more than one year it was an off-again on-again proposition. Firms that do an industrial manganese ore business had finally reached the point where some of them doubted the two Governments would ever be able to agree.

This barter differs from the usual CCC barter of its surplus agriculture products in that this is a Government with Government arrangment; apparently the usual barter conditions such as additionality do not apply.

The Indian State Trading Corporation, after asking U.S. firms for their ideas as to terms, indicated in effect the minimum terms that it felt were acceptable. Probably there will be several weeks of price negotiation between merchant firms and the CCC and also with the Indian STC.

India will supply ore and some ferromanganese; none of the ore is to be converted to ferro here. Presumably after it is in the accounts of the CCC the latter could convert it — but some importers doubt it will. The Indian Government is to pay the shipping charges. The total value of the ore and ferro is about $32-million f.o.b. cars in the U.S.

(More on page 12)

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ANTIMONY ORE: stu of Sb:
50-55% ..... $2.25-$2.40
60% ..... $2.50-$2.60
65% lump ..... $3.30-$3.35

BERYLLIUM ORE: stu BeO, 10-12%
Dom. (c) – dep. on quan. ..... $46-$48
Imported (a), (t) ..... $34-$34.50
Spot (a) ..... $31.75-$32.50

CHROME ORE: lt, dry basis, subject to penalties if guarantees are not met, f.o.b. cars, Atlantic ports
Rhodesian: (t)
48% Cr_2O_3, 3 to 1 ratio ..... (n) $34-$35
48% Cr_2O_3, 2.8 to 1 ratio ..... (n) $30-$32
48% Cr_2O_3, no ratio ..... (n) $25-$26
South African (Transvaal):
48% Cr_2O_3, no ratio ..... (n) $24-$26
44% Cr_2O_3, no ratio ..... (n) $18.25-$19
Turkish (basis 48% 3 to 1):
48% Cr_2O_3, 3 to 1 ratio, lump and concentrates ..... (n) $36-$37
46% Cr_2O_3, 3 to 1 ratio, lump and concentrates ..... (n) $33.50-$34
Pakistan (Baluchistan):
48% Cr_2O_3, 3 to 1 ratio ..... (n)

COBALT ORE: lb Co, free market
10% ..... (n) 60c
11% ..... (n) 70c
12% ..... (n) 80c

COLUMBITE ORE: lb pentoxide, 65% Cb_2O_5 and Ta_2O_5
Ratio 10:1 ..... $1.10-$1.20
Ratio 8½:1 ..... $.95-$1.05

IRON ORE: lt, lower lake ports,
Lake Superior ore 1959:
Bessemer
Mesabi 51½% Fe $11.60
Old Range $11.85
Non-Bessemer
Mesabi 51½% Fe $11.45
Old Range $11.70
Eastern ores, ltu, delivered, foundry and basic, 56-62% ..... (n)
Swedish (t) (a) 60-68% stu (g) ..... (n)
Brazilian (b) 68½% gross ton, premium for low P, 1-1-60 ..... $11.25
Smaller sellers $11

MANGANESE ORE: (a) (i) ltu.
Mn 46-48
Ind. Fe 10, P.15, Al+Si 13 ..... (n) 87c-90c
S. Af. Fe 9, P.05, Al+Si 13 ..... (n) 87c-90c
Mn 48-50, Braz. Fe 5, P.1, Al+Si 7, As .2 ..... (n) 91c

MOLYBDENUM ORE: lb cont. Mo.: 95% MoS_2 (b): (eff. 1.1.58)
Climax, cost of container extra $1.25
Molybdic trioxide MoO_3, bags (b) $1.46
cans $1.47

TITANIUM ORE: Ilmenite, gross tons TiO_2, 59½% f.o.b. cars, Atlantic ports ..... $23-$26
54% f.o.b. cars ..... $21-$21.50
Rutile, 94% st, for del. within 12 mos. ..... (n) $85

TUNGSTEN ORE: stu WO_3 65% basis foreign ore, (i), nearby arrival
Wolfram ..... $18.25-$19
Scheelite ..... $18.25-$19
Low moly scheelite, higher
U.S. scheelite, stu. (c) ..... $22-$24
London, ltu. WO_3 good ore
Wolfram 152s6d

VANADIUM ORE: lb V_2O_5 cont (c):
Domestic 31c

ZIRCON ORE: (sand) lt. (a)
Atlantic:
65% ZrO_2 ..... $50
Domestic 66%, st, (b):
Jacksonville ..... no quote
Stark, Fla. $47.25

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BRASS: Cents lb (base prices)

33c base:	Sheet	Wire	Rods
Yellow Brass	50.57	50.86	50.26
Best quality brass	52.07	52.36	51.76
Red brass 80%	53.53	53.82	53.22
Red brass 85%	54.58	54.87	54.27
Com'l bronze 90%	56.17	56.46	55.86
Gilding metal	57.23	57.52	56.92

Eff. 11-16-59

COPPER: lb, f.o.b. mill, eff. 11-9-59
Sheet, over 20" 57.13c
Rolls, 20" & under 56.41c
Wire, bare, carloads 38.35c

LEAD SHEETS: lb, full rolled 17½c

MONEL: lb, base prices
Standard sheet 97c
Cold-rolled strip 99c
Rods, hot-rolled 80c

NICKEL: lb, base prices
Sheet, cold-rolled $1.13
Rods, hot-rolled 94c

NICKEL SILVER: lb
Sheets, 10% 65.98c
18% 70.49c
Wire, Rods, 10% 68.06c

PHOSPHOR BRONZE: lb
Sheet, 5% Sn 77.44c
Wire, rods, 5% 78.19c
10% 84.93c

ZINC: lb, base prices, carloads, f.o.b. mill
Sheet 26c
Ribbon 21½c
Plates 20c

ZINC DIE CASTING ALLOY: lb, ingot carloads, del.
No. 3 ..... 15¾c
No. 5 ..... 16c

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COPPER, BRASS, ALUMINUM PRODUCTS
SALES AGENTS FOR
Vereinigte Deutsche Metallwerke A.G.
Frankfurt/Main

FLUORSPAR
SALES AGENT FOR
Gewerkschaft Finstergrund/Baden-Baden

Tel: Digby 4-1240 Cable Addr: Precious

E&MJ Yearly Average Prices — 1955-1959

	1955	1956	1957	1958	1959
Copper, dom., f.o.b. ref'y	37.491	41.818	29.576	25.764	31.182
Copper, foreign, f.o.b. ref'y	39.115	40.434	27.157	24.123	28.892
Lead, common, N.Y.	15.138	16.013	14.658	12.109	12.211
Lead, common, St. Louis	14.942	15.813	14.458	11.909	12.013
Zinc, P. W., St. Louis	12.299	13.494	11.399	10.309	11.448
Tin, Straits, N.Y.	94.735	101.409	96.261	95.127	102.053
Silver, New York	89.099	90.826	90.820	89.044	91.202
Quicksilver (flask 76 lb)	$290.348	$259.923	$246.978	$229.057	$227.484
Antimony dom., N.Y. (cases) (a)	33.651	36.470	36.590	33.075	32.590
Antimony, dom., bulk, Laredo	30.181	33.000	33.000	29.485	29.000
Platinum, refined	$85.978	$103.896	$89.451	$64.925	$73.250
Cadmium (prod. quot.)	170.000	170.000	169.650	152.300	134.583
Aluminum, 99+%, ingot	23.668	26.010(c)	27.516(d)	26.890(e)	26.838(f)
Magnesium, ingot (b)	29.678	33.966	35.250	35.250	35.250
Nickel, electrolytic	64.500	65.165	74.000	74.000	74.000
Sterling Exchange, U.S. cents per £			279.340	280.975	280.870

(a) Packed in cases, 5 tons or more but less than carload
(b) F.o.b. Freeport, Texas
(c) 99+% Pig aver. was 24.032
(d) Pig aver. was 25.416
(e) Pig aver. was 24.790
(f) Pig aver. was 24.738

London Yearly Averages

Figures are arithmetic averages of the 12 monthly LME averages. Monthly averages, both prompt and 3-month, are the mean of the bid and ask quote. London silver is also an arithmetic average of 12 monthly quotes.

LME:	1957	1958	1959
Copper, prompt, mean	£219.492	£197.384	£237.760
Copper, 3-mo., mean	£221.061	£197.201	£234.915
Lead, prompt, mean	£ 96.666	£ 72.800	£ 70.787
Lead, 3-mo., mean	£ 96.680	£ 73.349	£ 71.695
Zinc, prompt, mean	£ 81.617	£ 65.905	£ 82.127
Zinc, 3-mo., mean	£ 80.109	£ 65.546	£ 80.163
Tin, prompt, mean	£754.828	£735.035	£785.210
Tin, 3-mo., mean	£747.572	£735.081	£785.353
London Silver	78.927d	76.211d	78.818d

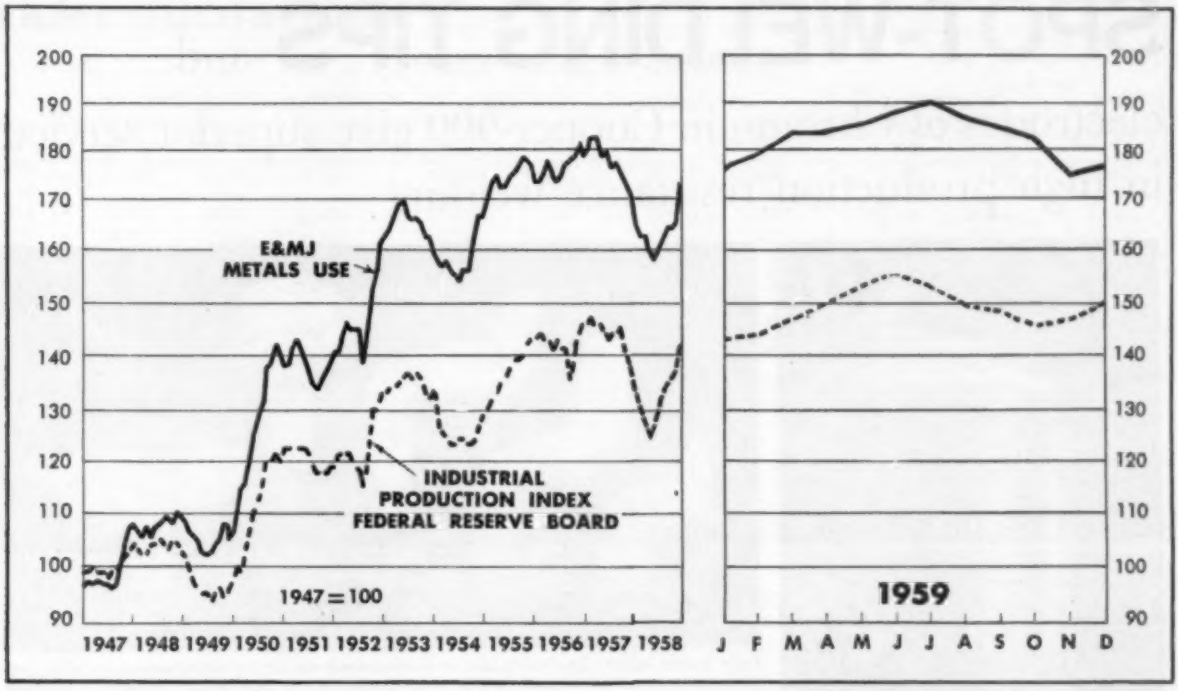
Kennecott Copper Corporation
Kennecott Sales Corporation

Producers and Sellers of

Electrolytic Copper
Chino Fire Refined Copper (K.C.M.)
Braden Fire Refined Copper (★★★)
Molybdenite

Offices

161 East 42nd St., New York 17, N. Y.



Metals use by U.S. industry in December, according to the *E&MJ* index, adjusted for seasonal variation, is estimated at 176% of the 1947-49 average, two points above the preliminary figure for November and six points below the October final of 182.

The *E&MJ* estimate of industrial production for December is 150, two points above the preliminary November mark and three points above the final October level of 147.

2% Rise in Tin Consumption

Consumption of primary and secondary tin in the United States in 1959, in long tons:

	Sept.	Oct.
Stocks beginning	33,370	36,125
Receipts	7,730	3,985
Supply	41,100	40,110
Stocks end	36,125	35,090
Total processed	4,975	5,020
Intercompany scrap transactions	150	100
Consumed in manufacturing	4,825	4,920
Primary	2,150	2,270
Secondary	2,675	2,650

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H. Green & Co. Formed

Harry Green, who recently resigned as president from Brandeis, Goldschmidt & Co., has established a new company under the name of H. Green & Co. Inc. at 61 Broadway, New York City.

The company will operate as general metal merchants.

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Commodity Exchange

(Continued from page 3)

High and low prices for Comex commodities during fiscal 1959 were: rubber, 49c and 28.08 c per lb; hides, 35c and 14.10c; zinc, 12.65c and 9.37c, lead, 12.85c and 10c; copper 35.35c and 26.91c per lb.

Trading in copper futures hit a new all-time high of 86,574 lots, topping by 167% the previous record of 32,389 set in 1958.

Veltfort on Copper

(Continued from page 3)

at least 450-million lb of copper water tube a year.

The brass mill product import threat is expected to continue to plague the industry during 1960 with imports entering the U.S. at an annual rate probably exceeding 200-million lb. "As we have consistently emphasized," said Veltfort, "the problem stems chiefly from the broad disparity in wage scales here and abroad, with productivity there closely approaching ours. This wage disparity, which affects practically all cost factors except perhaps metal cost, enables foreign brass mill producers to undersell domestic competitors, a condition that will continue to exist until equalized through an adequate tariff or other appropriate federal action."

World Supply Adequate

The Free World supply of copper will be more than adequate to meet the demands of the 60's and well beyond. Conservatively estimated, there is a 50-year supply of the red metal at the current rate of consumption. Increased per-capita consumption is being offset by discoveries of new deposits, and by further development of presently known ore bodies.

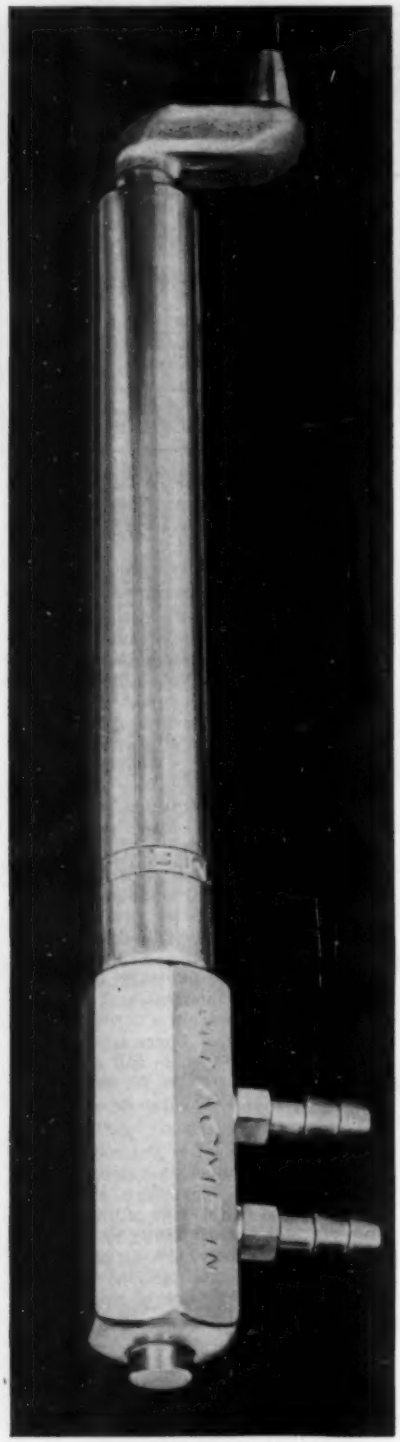
Announced capacity expansion plans at U.S. copper mines, for example, will increase total U.S. capacity from its current estimated 1,245,000 tons to 1,327,000 tons by 1963. Canadian copper capacity is expected to rise from 415,000 tons to 435,000 tons, and Chilean from 336,000 to 716,000 during the same period. The richly productive African mines, with a current total capacity of some 925,000 tons are scheduled to reach a capacity of 1,088,000 tons by 1963. Total Free World capacity is expected to rise from 3,860,000 tons to 4,369,000 tons during the same period.

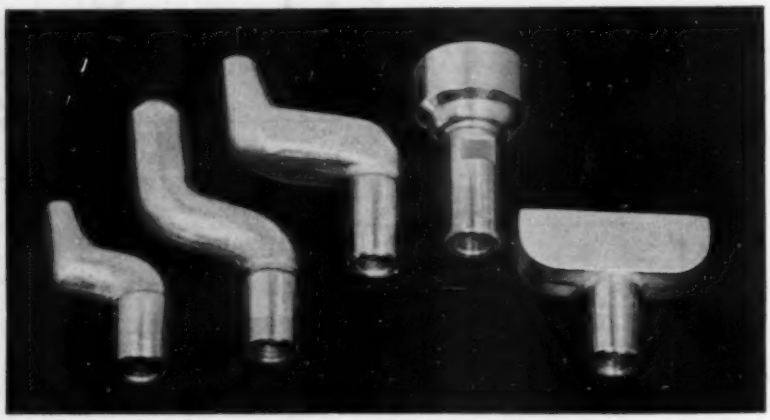
Much like the brass mills, the copper producers must continually improve and expand their facilities and methods. Foremost among new refineries perhaps is the new $30-million Kennecott refinery scheduled for dedication this month in Baltimore. It comprises 17 separate buildings, the largest a 270,000 sq. ft. tank house where copper is electrolytically refined. When in full operation, the new plant will use 600,000 kwh of electric power and consume nearly 1-million gallons of water daily.

Of equal interest is the more-than-$200 million Toquepala project of the Southern Peru Copper Corp. which will export about 140,000 tons of blister copper per year. Owned jointly by four U.S. companies, this new open-pit project involved the moving of millions of tons of earth before recovery of copper ore could begin. The ore is concentrated in a mill at the mine site, after which there is the job of hauling it 110 miles to the port of Ilo. There it is smelted into blister copper and put aboard ships for transport to refineries.

SPOT-WELDING TIPS and

electrodes of Chromium Copper-999 give superior service in high production resistance welding





Acme Electric Welder Co., Los Angeles, a leading resistance welding equipment manufacturer, produces standard spot-welding tips from Chromium Copper-999 rod, seam-welding wheels from Chromium Copper-999 sheet. Irregular shaped tips, above, are Anaconda die-pressed forgings of Chromium Copper. In pieces fabricated from rod, bar, or sheet, strength and hardness are increased by cold working after heat treatment. Anaconda gives forgings an additional cold strike after hot forging to increase surface hardness. *Left:* A forged welding tip in an Acme water-cooled tip holder.

IN resistance welding the electrodes must carry heavy currents under high pressures and at elevated temperatures. They must be made of materials that have high electrical and thermal conductivities and mechanical properties that will keep deformation and wear to a minimum. The widespread and growing use of resistance welding has stimulated research to meet the demand for more efficient and durable electrode materials.

CHROMIUM COPPER-999, one of Anaconda's high-strength, heat-treatable alloys, is an excellent electrode material with a record of superior performance in high-production welding. Electrical and mechanical properties exceed those listed for RWMA Class 2 material. Electrical conductivity is about 80% IACS and thermal conductivity is comparably high. In addition it has tensile strength of about 70,000 psi after heat treatment (compared with 48,000 psi for hard drawn ETP Copper), and its mechanical properties remain high at temperatures approaching 400 C. Available as rod, bar, sheet, tube and die-pressed forgings.

Anaconda also offers Hitenso®-961 as a more economical electrode material for use where service conditions are not severe enough to require the higher properties of Chromium Copper-999. Its properties exceed those of RWMA Class 1 material, having electrical conductivity of about 85% and tensile strength of about 60,000 psi. Available as rod, bar and plate.

TECHNICAL ASSISTANCE. For further information on these Anaconda alloys or for technical assistance in the selection of the right alloy to meet special problems, see your American Brass Company representative. Or write: The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.

RESISTANCE WELDING ELECTRODE MATERIALS
ELECTRICAL COPPERS • WELDING RODS

ANACONDA®

PRODUCTS MADE BY THE AMERICAN BRASS COMPANY

E&MJ QUOTATIONS

Daily Prices of Metals

Dec.-Jan.	COPPER ELECTROLYTIC Domestic Refinery	Export Refinery	Europe c.i.f.	LEAD New York	LEAD St. Louis	ZINC (b) Delivered (a)	ZINC (b) East St. Louis	ALUMINUM Primary Pig 99.5% U.S. dest.	ALUMINUM Primary Pig 99.5% Export	TIN Straits New York
31	33.200	31.225	32.170	12.000	11.800	13.000	12.500	26.000	23.250	98.875
1	Holiday									
4	33.845	30.925	31.870	12.000	11.800	13.000	12.500	26.000	23.250	99.250
5	34.175	31.000	31.945	12.000	11.800	13.000	12.500	26.000	23.250	99.500
6	33.600	31.075	32.020	12.000	11.800	13.000	12.500	26.000	23.250	99.250
Averages	33.713	31.056	32.001	12.000	11.800	13.000	12.500	26.000	23.250	99.219
Calendar Wk. Avgs.										
Dec.-Jan. 28-1	33.744	31.500	32.445	12.000	11.800	13.000	12.500	25.675	23.250	98.688

(a) Prime Western Zinc sold on delivered basis at centers where freight from East St. Louis exceeds one-half cent a pound.

The above quotations are our appraisal of the major United States markets, based on sales reported by producers and their agencies. They represent payments received by producers for the product. They are reduced to the basis of cash, New York or St. Louis, as noted. Prices in cents per pound.

Copper, lead and zinc quotations are based on sales for prompt and future deliveries; aluminum weighted average prices are based on estimated sales and announced prices; tin quotations are for prompt delivery only.

COPPER prices, domestic, in the trade are quoted on a delivered basis, that is, delivered at consumer's plants. Delivery costs vary with the destination. The above prices are net prices at the refineries; the average shipment cost is deducted in order to arrive at a refinery price. Beginning Jan. 2, 1957, the average differential between delivered and f.o.b. prices is taken as 0.400c per lb.

COPPER quotations, foreign or export, reflect prices obtaining in the open market and are based on sales in the foreign market reduced to the f.o.b. refinery equivalent. Atlantic seaboard. On f.a.s. transactions, eff. Jan. 2, 1957, we deduct 0.125c for lighterage, etc., to arrive at the f.o.b. refinery quotation.

COPPER, Europe, c.i.f., is the export refinery quotation with the addition of the lighterage figure 0.125c, and freight to main Continental ports, 0.82c.

COPPER quotations are for ordinary forms of wirebars and ingot bars. The premiums on special shapes, effective in some instances on deliveries beginning Sept. 1, 1955, are: Standard ingots 0.25c per pound; slabs 0.55c and up, cakes 0.6c and up, depending on weight and dimensions; billets 1.725c and up, depending on dimensions and quality. Discount on cathodes 0.125c to 0.15c per pound.

ZINC quotations reflect sales of the Prime Western grade as well as sales of other grades when sold on a Prime Western basis. (b) **Zinc premiums** . . . obtaining over Prime Western zinc in the East St. Louis market on the following grades, in cents per pound: **Selected 0.10c; Brass Special 0.25c; Intermediate 0.5c. High Grade** zinc sold on contract, delivered to the consumers' plants, commands a premium of 1¼c per lb, eff. Sept. 2, 1959, over the East St. Louis basis for Prime Western. **Special High Grade** premium or differential is 1⅛c per lb, eff. Sept. 2, 1959.

LEAD quotations are for the common grade, and are based on sales of domestically refined metal sold to domestic consumers. The differential on sales in the Chicago district is 15 points under New York; for California 20 points under New York; for New England add 7½ points to the New York basis. Corroding grade commands a premium over common lead of 10 points.

ALUMINUM quotations refer to primary pig 99.5% in cents per pound. The U.S. price is freight allowed to buyers' plant; it includes sales by Canadian producers. It is a delivered price but the buyer may arrange shipment and receive the standard freight allowance. The export price is the price at which U.S. primary producers sell c.i.f. (delivered) foreign ports. The quotations are weighted averages with the weights determined by the relative capacity of the producers. Ingot sales reduced to the pig price are included in determining the price. The premium on standard ingots is 2.1c per lb.

Note: The daily quotations for copper, lead and zinc are weighted averages of sales reported to *E&MJ*; weekly averages are arithmetical averages of the daily quotations; monthly averages are the arithmetical averages of the daily quotations.

Silver, Gold, and Sterling Exchange

Dec.-Jan.	Silver N.Y.	Silver London	Sterling Exchange	London Gold (a)
31	91.375	80.250d.	279.9500	250s. 6½d.
1	Holiday			
4	91.375	80.250d.	280.0700	250s. 4d.
5	91.375	80.250d.	279.9120	250s. 6¼d.
6	91.375	80.250d.	279.8860	250s. 7¼d.
Av.	91.375	—	279.955	—
Calendar Wk. Avgs. Dec.-Jan. 28-1	91.375	—	279.852	—

(a) Open Market

The daily silver quotation reported by Handy & Harman, in cents and fractions of a cent per troy ounce, is the price paid by Handy & Harman in settlement for silver contained in unrefined silverbearing materials submitted to them for refining. It is determined on the basis of offers of bar silver .999 fine as made to Handy & Harman for nearby delivery at New York by regular suppliers in quantities sufficient to meet daily requirements, and it is usually one quarter cent below the price at which such offers are made.

The Treasury's purchase price of newly mined domestic silver was established at 90.5c per troy ounce, 1000 fine, effective on July 1, 1946 under an amendment to the Silver Purchase Act of July 6, 1939.

London silver quotations are in pence per troy ounce, basis .999 fine.

London gold quotations are per troy ounce, basis 1000 fine.

Sterling, in cents, noon buying rate for cable transfers as certified by the Federal Reserve Bank of New York, for customs purposes.

Aluminum Alloys Secondary Dec. 31-Jan. 6

	Tons	Price/lb
No. 13	16	26.00c
No. 43	16	26.10c
No. 360		No Quote
No. 380		
1% Zn	328	25.02c
2% Zn		No Quote
3% Zn	238	24.22c

The secondary aluminum alloy prices are weighted average prices calculated from reports by secondary aluminum producers of the prices and quantities of their sales.

London Metal Exchange

Dec.-Jan.	COPPER Cash Bid	COPPER Cash Asked	COPPER 3 Mo. Bid	COPPER 3 Mo. Asked	LEAD Current Month Bid	LEAD Current Month Asked	LEAD 3 Mo. Bid	LEAD 3 Mo. Asked	ZINC Current Month Bid	ZINC Current Month Asked	ZINC 3 Mo. Bid	ZINC 3 Mo. Asked	TIN Cash Bid	TIN Cash Asked	TIN 3 Mo. Bid	TIN 3 Mo. Asked
31	255	255½	239¾	240	73¾	74	73¼	73½	94¾	94⅞	89¾	90	785	785½	782	782½
1	Holiday															
4	253	253½	239	239½	74⅛	74⅜	73⅝	73⅞	94⅛	94⅜	89⅛	89¾	785½	786	782	782½
5	254½	255	241½	242	75	75¼	74	74⅛	95⅛	95½	90¼	90¾	790¼	791	785½	786
6	254	254½	242¼	242½	74⅞	74⅞	73⅝	73⅞	95½	95⅝	90⅜	90⅝	788½	789	784½	785

Prices are for the official a.m. session in pounds sterling per ton of 2240 lb. Copper basis electrolytic and fire refined wire bars, lead 99.97%, zinc 98% and tin min. 99.75%.

THIS WEEK'S BUSINESS INDICATORS

	Latest Week	Preceding Week	Month Ago	Year Ago	Net Change Year Ago
Steel Rate (% of capacity in operation)	(d) 95.0	(a) 96.3	101.0	77.1	+17.9
Steel Ingot Production, thousands of tons	(d) 2,707	(a) 2,726	2,732	2,085	+622
Automobile Production (cars and trucks)	(d) 136,852	(a) 124,091	70,240	117,862	+18,990
Electric Power Output (millions kwh.)	(d) 13,400	14,150	13,173	12,379	+1,021
Engr'g Const. Awards, 4-week daily av., in thousands (c)	$52,013	52,460	60,030	49,245	+2,768
Federal Reserve Index of Industrial Production (e)	150 Dec.	....	148	142	+8
E&MJ Index of Nonferrous Metal Prices (e) (b)	128.1 Dec.	....	129.5	117.4	+10.7
All Commodities, Bureau of Labor Statistics (e)	(d) 118.9 Dec.	....	118.9	119.1	−.2

(a) Revised. (b) Weights based on 1922-3-4. (c) From Eng. News-Record. (d) Preliminary. (e) Base period (100) is 1947-49

Phelps Dodge Corporation

COPPER

Phelps Dodge Refining Corp.

300 PARK AVENUE,
NEW YORK 22, N. Y.

P ★ D ELECTROLYTIC COPPER

PDM FIRE REFINED COPPER

LNS ELECTROLYTIC COPPER

TRIANGLE BRAND
COPPER SULPHATE · NICKEL SULPHATE

SMELTERS: Morenci, Ariz.
Ajo, Ariz.
Douglas, Ariz.
Laurel Hill, N. Y.

REFINERIES: El Paso, Texas
Laurel Hill, N. Y.

PRECIOUS METALS
SELENIUM • TELLURIUM
COPPER PASTE (80% CU)

BUYERS OF BULLION, ORES,
CONCENTRATES, MATTES,
BLISTER, COPPER, SCRAP
METALS and RESIDUES

Ferroalloys

(a) carload lots; (b) delivered; (c) lump, bulk; (d) f.o.b. shipping point; (n) nominal

FERROCHROMIUM: lb contained Cr; (a) (b) (c) cont. U S.
High carbon (4-9% C, 65-70% Cr).....28.75c
Cr).....28.75c
Low carbon (0.10% C, 67-72% Cr) eff. Oct. 1, 1957.....38.50c
Special (0.01% C, 63-66 % Cr) eff. Oct. 1, 1957.....37.75c
Charge chrome 1.....22c
Refined chrome 1.....25c

FERROCOLUMBIUM: lb contained Cb; ton lots, lump (2 in) packed; (b) cont. U.S.—(50-60% Cb. max 0.40% C, max 8% Si).....$3.45

FERROMANGANESE: lb (a), (c), (d) (74-76% Mn)
Standard, eff. Sept. 19, 1957.....12.25c
Medium Carbon- lb contained Mn; (a), (c), f.o.b. U.S. — (80-85% Mn, 1¼-1½% C).....25.50c
Low carbon-basis as for Med. Carbon- (85-90% Mn, Max, 0.07% C)....35.10c

FERROMOLYBDENUM: lb Mo; lots 5000 lb or more, (d) (58-64% Mo) powdered, packed.....$1.82
Other sizes, packed.....$1.76
Calcium Molybdate (CaO MoO3) lump, packed.....$1.80

FERROPHOSPHORUS: per gross ton; (a), (c), (max 6 in.); (d) (equivalent to Tenn.) (23-26% P).....$110
plus $4 per 1% above or below 24%.

FERROSILICON: lb contained Si; (a), (c), (d) (50% Si).....14.60c

FERROTITANIUM: low carbon — lb contained Ti; ton or more lots, lump (½ in.), packed, f.o.b. dest. NE U.S. — (40% Ti, max 0.10% C).....$1.35
(25% Ti, max 0.10% C).....$1.50
Medium Carbon — net ton; (a), lump, packed; f.o.b. dest. NE U.S. — (17 to 21% Ti, 3-5% C).....$290-5
High carbon — basis as for Med. carbon — (15 to 19% Ti, 6 to 8% C)..$240-5

FERROTUNGSTEN: lb contained W; lots of 5,000 lb or more, lump (¼ in.), packed; f.o.b. dest. cont. U.S.—(70-80% W) (n).....$2.15

FERROVANADIUM: lb V; (a), var. sizes, packed; f.o.b. U.S. — (50-55% V)
open hearth.....$3.20
crucible.....$3.30
high speed.....$3.40

SILICOMANGANESE: lb; (a), (c), (d).
(1.5% C max 18-20% Si).....12.80c
(2% C max 15-17½% Si).....12.60c
(3% C max 12-14½% Si).....12.40c

SPIEGELEISEN: per gross ton; (a), (c) f.o.b. Palmerton, Pa.
3% max Si, 16-19% Mn.....$100.50
3% max Si, 19-21% Mn.....$102.50
3% max Si, 21-23% Mn.....$105.00
Eff. on orders of Jan. 7, 1957

Loewenberg Becomes President Of Brandeis, Goldschmidt & Co.

Brandeis, Goldschmidt & Co. announced that Harry Green has resigned as president and director of the company. In accordance with appointments made by the board of directors at the January 4, 1960 meeting the management of the company consists of the following: Kurt Loewenberg, president; John Wehncke, vice president; Morton L. Schultz, vice president; Henry G. Eisenberg, vice president; Karl Hamlet, secretary-treasurer; and Harry Gumpert, assistant to the president.

London Copper Prices

The following prices in £ sterling per long ton c.i.f. European ports are calculated by the London Metal Bulletin (see *M&MM* Feb. 13, 1958, p 3).

Dec. 28	258.946	Dec. 31	257.454
Dec. 29	261.577	Jan. 1	Holiday
Dec. 30	259.415		
Av.	259.348		
Dec. av.	253.845		

Dec. 23 was 259.646, Dec. 24 was 259.865; av. Dec. 21-25 was 257.543.

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Tri-State Concentrates

Joplin, Jan. 2, 1960

(a) *Blende*	*Per Ton*
Prime coarse (60% zinc)	$75
Flotation, 60% zinc	$76

(a) Effective Nov. 2, 1959

Galena

Coarse and flotation, 80% lead.... (a)$141.72

(a) Effective Dec. 21, 1959

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Smelters' Aluminum Alloys

Delivered prices of smelters' aluminum ingot, per pound, in lots of 10,000 lb or more.

Piston alloy D132 28-29c. No. 12 alloy 24¾-25¼c. No. 13 alloy, max. .30 copper, 26¼-26½c.

Deoxidizing grades: No. 1, 25¼-26¼c; No. 2, 24-25c; No. 3, 23-24c; No. 4, 22¼-23½c.

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Dealers' Scrap Prices

Dealers' buying prices, f.o.b. New York or equivalent freight points, for wholesale quantities, in cents per lb.

No. 1 copper wire	25-25½
Heavy copper & wire, mixed	22½-23
Light copper	21-21½
No. 1 composition	18½-19
Composition turnings	17½-18
Light brass	12-12½
Yellow brass turnings, mix	12-12½
Heavy yellow brass, mixed	13-13½
Auto radiators, unsweated	14½-15
Brass pipe, cut	15-15½
Rod brass turnings, No. 1	12½-13
Rod ends, brass	13-13½
New soft brass clips	15½-16
Cast aluminum, mixed	11-11½
Aluminum crankcases	11-11½
Aluminum clips, new soft	15-15½
Sheet aluminum, old clean	11-11½
Aluminum turnings, clean	6-6½
Zinc die cast, mixed	1½-2
Zinc die cast, new	3-3½
Old zinc	3-3½
New zinc clips	4½-5
Soft or hard lead	8½-9
Battery plates	4½-5
Babbitt mixed	9½-10
Linotype or stereotype	9-9½
Electrotype	8-8½
Solder joints close cut	13½-14
Block tin pipe	78-79
Autobearing babbitt	40-41
Monel Clips, new	30-32
Monel sheet, clean	26-28
Nickel, rod ends	52-54
Nickel, clippings	52-54

SLAB ZINC

★ ELECTROLYTIC
Special High Grade
High Grade
Continuous Galvanizing Line Grades

★ FIRE RETORT
High Grade
Intermediate
Continuous Galvanizing Line Grades
Brass Special
Select
Prime Western

American Zinc sales company

Distributors for AMERICAN ZINC, LEAD & SMELTING COMPANY
Columbus, Ohio ☆ Chicago ☆ St. Louis ☆ New York ☆ Detroit ☆ Pittsburgh

Brass and Bronze Ingot

85-5-5-5 (No. 115) 30¾c; 80-10-10 (No. 305) 35¼c; 88-10-2 (No. 215) 40¾c; Yellow (No. 405) 24¾c; and upward. Manganese bronze (No. 420) 28¼c.

Smelters' Copper Scrap Prices

Custom smelters' buying prices for scrap, carload lots, refinery:

No. 1 copper and wire, 29½c; No. 2 heavy copper, 26c; light copper, 23¾c; refinery brass, 24¼c.

ASSOCIATED METALS & MINERALS CORP.
75 WEST ST. • NEW YORK 6, N. Y. • WHITEHALL 3-5040

IRON ORE
CHROME ORE
MANGANESE ORE
FLUORSPAR

CABLE: "ZINCUM"

AMMC

selling buying

COPPER • LEAD • ZINC • TIN

silver–bismuth–cadmium
OFHC® Copper–OFHC® Copper Anodes
solder–metal powders–zinc-base alloys
selenium–tellurium–germanium

MOLYBDENUM

ferromolybdenum–technical molybdic oxide
technical thermite metallic molybdenum
molysulfide t.m. –molybdenum pentachloride
pure molybdic oxide–calcium molybdate

ORES • SCRAP • RESIDUES

for custom smelting and refining

gold–silver–copper
zinc and lead ores, sweeps,
mattes, and bullion
copper and brass scrap
copper-bearing material
zinc drosses and skimmings
lead scrap and residues
lead-covered cable
tin-bearing material
automobile radiators

AMERICAN METAL CLIMAX, INC.
61 Broadway, New York 6, New York

AMAX

Lead Average (Monterrey)

The net price realized by the American Smelting & Refining Co. on all of its sales of Mexican pig lead, including metal sold for consumption in Mexico, during the week ended Jan. 2, 1960, was 8.87c (U.S. per lb. f.o.b. refinery) Monterrey, Mexico.

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Mineral & Ore Markets

(Continued from page 3)

Industrial manganese ore business in the U.S. continues quiet; there are some reports that a few buyers have shown some interest now that the steel strike is settled. But a number of manganese ore sellers point out that ore users' stocks remain very high and that there is no urgency for most of them to buy.

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Antimony ore markets have firmed. In the past month or two heavy tonnages of Bolivian lumpy ore have been sold. Users in Europe, Japan and the U.S. had bought a good amount. The stocks which had accumulated at some South American ports have been cut down. Some sellers report that movement of Chinese (mainland) ore and metal to Europe had dropped.

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Tungsten ores firmed again. Some consumers in the United Kingdom, but also in Germany and Japan, have rather short inventories. The Board of Trade in the U.K. has been selling more cautiously than last fall and has not been depressing the market. Sales the past few days in Europe have been at more than 150 shillings per long ton unit.

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Metallic Compounds

COPPER SULPHATE: lb, carloads, f.o.b., crystals or diamond, eff. 11-6-59
Per 100 lb $13.00

GERMANIUM DIOXIDE: gm.....16¾c

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A Custom Smelter Copper Price Dec. 31-Jan. 6

The following prices are computed by MAMM from data on flat price and average price sales reported by the American Smelting & Refining Co. They refer to electrolytic copper in standard shapes.

Delivered consumers' plants 34.875c
F.O.B. refinery 34.475c

They are for sales in the U.S. market and are adjusted to the nearest one-eighth cent. A one-quarter cent deduction for selling commission has been made.

Dec. aver. .....del. 34.500c
f.o.b. 34.100c

N.Y. Commodity Exchange

Dec.-Jan.	COPPER Jan. Bid	COPPER Jan. Asked	COPPER Mar. Bid	COPPER Mar. Asked	C	LEAD Jan. Bid	LEAD Jan. Asked	LEAD Mar. Bid	LEAD Mar. Asked	ZINC Jan. Bid	ZINC Jan. Asked	ZINC Mar. Bid	ZINC Mar. Asked	TIN Jan. Bid	TIN Jan. Asked	TIN Mar. Bid	TIN Mar. Asked
31	33.22	33.22	31.69	31.69	164	10.97	11.05	11.15	11.20	11.63	11.70	11.81	11.85	*	*	*	*
1	Holiday																
4	33.35	33.35	31.87	31.87	309	11.12	11.20	11.30	11.35	11.90	12.00	12.10	12.10	*	*	*	*
5	32.94	32.94	31.80	31.83	356	11.14	11.25	11.34	11.40	12.00	12.10	12.18	12.18	*	*	*	*
6	33.00	33.00	31.95	31.95	295	11.25	11.35	11.44	11.44	12.03	12.15	12.22	12.22	*	*	*	*

*Trading suspended

Closing quotations on the N.Y. Commodity Exchange in cents per lb. C is number of contracts traded for the seven months of the year for which the Exchange accepts trading. Each contract is for 25 tons. Where bid and asked prices are the same, closing quotation was one at which transactions occurred.